Research newbies

38 students given keys to their respective labs as part of the Undergraduate Research Initiative

Wellness PAWs at the door

University awaits green light to begin construction on the Physical Activity and Wellness Centre

FAB Gallery turns 25

Gallery's manager has been there since the beginning

Volume 49 Issue 16 | April 13, 2012 | www.ualberta.ca/folio

U of A exhibit explores why we bring travel trinkets home

Bev Betkowski

verybody brings home vacation souvenirs-some ✓ classy, some trashy—to gather dust as treasured trinkets. For Karly Coleman, it was a red and gold mask she bought as an enamoured 16-year-old, in love at the time with the magic of Venice.

1 This exhibit will explore how well objects represent specific places, and whether this is important to the object's inherent value."

Megan Strickfaden

"Ir was a lovely, evocative element of the trip to bring backand other than it was crushable, so I spent the rest of the trip trying not to break it, it still reminds me of the times I had that year," she recalls now with a grin.

Coleman, an open studies student in the University of Alberta's Department of Human Ecology, is one of 23 pupils who have gathered together their most beloved personal souvenirs for a springtime exhibit that primes people to think about what kind of goodies they buy to take home, and why.

Just in time for the coming vacation season, Greetings From.. Exchanging Cultural Ideals Through Tourism celebrates and explores the trinkets we may pay too much for and jam into overstuffed suitcases to haul hundreds of miles, so they can sit on a shelf or wall, or be given away.

We want this exhibit to incite curiosity about the souvenirs people buy-why they are bringing

Fridge-door masterpieces



Karen Beattie, a student in education, helps her daughters Emily (left) and Jules with their creations as part of the Happiness Creative Workshop put on by the Arts Aboriginal Student Council and the Faculty of Arts held in Quad April 11.

New dean named to the Faculty of Medicine & Dentistry

Michael Brown

₹he University of Alberta Board of Governors has selected D. Douglas Miller as its new dean for the Faculty of Medicine & Dentistry. His term begins July 1.

Miller, an internationally recognized cardiologist and clinical scientist, is joining the U of A after six years at the Medical College of Georgia in Augusta, Georgia, including a successful term as the dean of their School of Medicine and senior vice-president for health affairs.

"As dean and senior vicepresident for health affairs, Miller instituted many innovative initiatives with measured outcomes that are truly impressive," said Carl Amrhein, University of Alberta provost and vice-president Continued on page 3 (academic). "He has a strong

reputation of integrity and a genuine desire to seek consultation. He listens with thoughtfulness and leads with the best interests of the organization at heart. He has a passion for the continual improve ment of health-care systems and the intellectual and strategic abilities to be effective in this pursuit."

Miller says his strategy for making a positive and sustained impact on an institution is simple—start by listening.

"I want to start at the University of Alberta by listening carefully to the internal and external stakeholders, the faculty, the students and the staff, in order to understand their aspirations and to begin the dialogue about the institution's success going forward," said Miller. "I also want to bring my experience as dean, and hope fully a measure of stability and renewed leadership to the faculty.

I'm excited about being one of very few people who have been given the chance to lead a faculty of medicine in both Canada and the United States. That is both an honour and a unique career opportunity, for which I am very appreciative.

Miller was born in Brockville, Ont., but spent his formative years in Montreal. He completed his undergraduate studies at Concordia in 1974. After flirting with the idea of a career in journalism, Miller de cided on medical school at McGill University, where he also completed an internal medicine residency in 1981. He completed a clinical and research cardiology fellowship at the Montreal Heart Institute in 1982, a clinical cardiology fellowship at Emory University School of Medicine in 1984 and a cardiac imaging fellowship at Harvard University in 1986.



D. Douglas Miller is the new dean of the Faculty of Medicine & Dentistry.

Before going to Georgia, Miller's career was highlighted by postings at several top cardiology programs in the U.S., including the University of Texas Health Center

Continued on page 2

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folio

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folio's mandate is to serve as a credible news source for the university community by communicating accurate and timely information about issues, programs, people and events and by serving as a forum for discussion and debate, folio is published 23 times per year.

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38 undergrads released into the research mix

Michael Brown

University of Alberta campaign to equip undergraduates with the real-world tools to carry out their own research came to fruition last week as the first round of projects to be funded



Connie Varnhagen

The Undergraduate Research Initiative, which began accepting research proposals shortly after being launched last September, handed out \$5,000 stipends to 38 undergraduate research proposals March 28.

'The URI was created to help undergraduate students carry out research-after all, we are a research-intensive university," said Connic Varnhagen, URI's academic director. "We have 38,000 undergraduate students at the U of A and we want to find a way for them to get research experience.

Varnhagen says the Office of Advancement's Annual Fund seeded the venture with enough money for 15 projects. Expecting only a few dozen applications, URI organizers were surprised after receiving 140 complete applications for 158 students, Varnhagen says.

"I thought, 'A less than 10 per cent return rate would be devastating for students.' We complain about other awards that have a 30 to 40 per cent return rate," she said.

Varnhagen said she pleaded the URI's case to the campus community and received an overwhelming response from virtually every faculty as well as the provost's office.

Research is our calling card; this is what makes us different from a college or technical school. We need to support students in this and we need to support them in mentored research," said Varnhagen.

In adjudicating the proposals, Varnhagen says, URI administrators didn't request transcripts faculty or year of study, just that the proposal be interdisciplinary.

One such project proposal came from Victoria Bleeks, a third-year drama major. Her project, titled "Lifelong Learning at the Jubilee," will see her work in collaboration with the Jubilee's Community Engagement Department to redevelop its Lifelong Learning Program, which offers a range of creative programs for seniors.

Bleeks, who says she has been involved with seniors since she was a youngster volunteering at geriatric hospitals with her grandmother, plans on creating drama workshops for seniors using exercises acquired through her continued study with the intergenerational U of A-based theatre company GeriActors. She says the ultimate goal of this project is to foster a link between the

university and the Jubilee, and hopes implementation of the proposed program may accommodate future placement of Community Service Learning students at the Jubilee.

≤ We have 38,000 undergraduate students at the U of A and we want to find a way for them to get research experience."

Connie Varnhagen

"When I came to the U of A, I had the opportunity to combine my work with seniors and love of the arts with the GeriActors," said Bleeks. "It has been a great experience, but it made me realize how limited the research in this area is.

It was that lack of information that Bleeks says pushed her to apply for a URI stipend.

"I believe undergrad research prepares me for grad studies and it also confirms my interest," said Bleeks, who has been accepted into a grad school abroad as a direct result of participating in URI. "It's been a good week."

Varnhagen says getting more students to think about grad school is one of goals of the program, but adds it is not necessarily important for all students to do mentored research.

"Our students want to do research, that's why they're here, but what is important for students is to learn the tools of their trade," said Varnhagen. "This opportunity allows students to take their education one step further, whether it is towards a career or grad studies."

To donate to the annual fund to support the URI, go to www.giving.ualberta.ca.

New dean looking to bring balance to faculty's established excellence

in San Antonio and the Saint Louis University School of Medicine.

Along the way, Miller made a name for himself as one of the top cardiologists in the country. His research interests include the inflammatory basis of coronary atherosclerosis, advanced imaging for the early detection of heart disease and the effects of gender on cardiovascular treatment and patient outcomes

Miller developed a particular interest in women's cardiovascular health issues in the mid-1990s as the medical establishment began to recognize the gaps in women's health, particularly that women's heart disease was not identical to men's heart disease. Miller's research group published one of the first studies outlining care differences between genders. It showed that, all things being equal, women were much less likely than men to get surgery for cardiovascular problems, and much more likely to have a future heart attack or die. His group also determined that it was equally cost-effective to test women and men with a similar risk for heart disease using various imaging techniques, and that various types of non-invasive tests could be used to predict the future likelihood of a

"What was needed back then was a more gender-appropriate view of heart disease," he said. "Ten, 15 years later, a lot of that work is now part of accepted medical practice."

A byproduct of this groundbreaking work was Miller's

first-hand experience guiding his research along the clinical translational science continuum, from basic research in the lab to clinical trials to patenting and implementation science. "I like to say we were doing translational research before they called it translational research."

Miller says the insights he gained at each point along the scientific spectrum, along with some encouragement from great mentors, were among the main drivers that pushed him to take on more administrative roles.

an academic medicine leadership 'bug' to think that I would be interested in an administrative career.'

In 2000, Miller became the new chair of the department, a role he held for six years before moving with his family to Augusta to as sume the deanship at the Medical College of Georgia

Once in place, Miller wasted little time seeking the input of the faculty and putting his ideas to work. One of his first orders of business was to facilitate the medical school's expansion from one campus to four, which gave

from 2007 to 2010, despite trying economic times.

Continued from page 1

"Throughout my time as dean, we worked closely with the faculty to integrate our clinical enterprise in a fashion that was consistent with that at the best-quality academic health centres," said Miller. "We went from a less integrated, separate model of physicians and hospitals not really being under the same corporate umbrella, to a more integrated model of care delivery that now has an enterprise approach to clinical care that brings physicians and hospitals closer together. That is something our team worked hard on, and that came to fruition under my deanship.'

Miller, who takes over for Verna Yiu, who served in the role of interim dean for the past 10 months, says he is excited to be returning to Canada and joining the university at a crucial juncture in its ascent to greater national and global prominence

"Balance is the firm foundation of organizational advancement towards any shared goal—this Faculty of Medicine & Dentistry already excels across all the academic missions. I am confident that continuing innovations in education, science and clinical care will emerge as this committed team seeks to build true partnerships for success across the faculties, the province of Alberta and the world. The real beneficiaries of a great faculty are the learners, the colleagues and the communities that they serve." In

🕻 I want to start at the University of Alberta by listening carefully to the internal and external stakeholders, the faculty, the students and the staff, in order to understand their aspirations and to begin the dialogue about the institution's success going forward."

Douglas Miller

In 1998, Miller was named vicechair in the Department of Internal Medicine at Saint Louis University School of Medicine. Completion of an executive master's degree in international business was a natural career development step.

'That's when I became excited about learning how to implement advanced management and administrative tools in both clinical and academic settings," he said. "I was also asked to be the acting chief of staff at one of our main teaching hospitals—that gave me enough of

MCG the ninth-largest medical school enrollment in the nation by 2010. Miller would then successfully develop a new structure for interdisciplinary research by creating six Discovery Institutes, which were designed to "bring physicians and scientists together towards the goal of securing funding for 'big science' projects that were cross-cutting and that were truly translational in nature." This move helped propel extramural research investment at MCG from \$70 million to more than \$100 million

Breast cancer researcher discovers a contradiction in tumours

edical research at the University of Alberta suggests some breast cancer tumours



Ing Swie Goping's research team found that chemotherapy works better on stronger tumours

may be resistant to a common with chemotherapy before chemotherapy treatment.

Principal investigator Ing Swie Goping and her team discovered some breast cancer tumours have low levels of certain genes, and that those tumours didn't respond well to taxane chemotherapy, a common treatment used in

'These tumours didn't shrink and were resistant to a common chemotherapy treatment. These results give us a strong incentive to continue our research," she said.

Goping and her team looked at tumour samples from 24 breast-cancer patients who had been treated

surgery. The team found four genes in the "survival" system of tumour cells, which did not function well in some of the samples. According to Goping, this should indicate a weakened tumour survival system and thus the patient would be considered a good candidate for an effective chemotherapy treatment. Instead, Goping's team found that the stronger a tumour's survival system is, the better the chemotherapy worked.

'This discovery was a bit of a surprise," said Goping, a researcher in both the departments of biochemistry and oncology. "One would

expect that tumour cells with strong survival systems would be more chemotherapy

66 One would expect that tumour cells with strong survival systems would be more chemotherapy resistant, but that's not what we discovered."

Ing Swie Goping

resistant, but that's not what we discovered."

Goping noted this research was purely curiosity-driven, and the finding underscores the importance of basic research. "It was a question we were asking at a very basic level and it turns out the discovery could be clinically relevant. At the moment there is no tool to determine which women would be good chemotherapy. And chemotherapy resistance is a major clinical problem."

Goping says she hopes to continue this research by examining tumour samples from thousands of patients over a span of at least three years, in hopes of confirming what the team discovered is indeed a 'marker' that will predict which breast cancer patients will respond well to taxane chemotherapy. She noted it would be years before doctors would be able to actually start testing breast cancer patients for this

The Canadian Breast Cancer Foundation— Prairies/NWT Region and Alberta Innovates—Health Solutions funded the re search, which was published in the peer-reviewed journal Oncogene. II

Dental lecturer brings smiles to Cambodia

Raquel Maurier

n instructor with the University of Alberta's Faculty of Medicine & Dentistry recently returned from a goodwill trip to Cambodia where he was part of a team offering free dental and medical assistance.

Kevin Lobay, a clinical lecturer in both Dentistry and the Department of Emergency Medicine, made the two-week overseas trek in mid-February with 15 other Canadians through Kindness in Action. Once in Cambodia, the team grew to more than 25 members when local volunteers joined in the efforts. During the goodwill trip, the team saw 1,000 patients in five communities. The team included dentists, dental hygienists, dental assistants, physicians and pharmacists.

Lobay, who is trained as a dentist and emergency medicine physician, worked with many children who had major tooth decay. Some children simply needed numerous fillings, but others had to have all of their teeth removed because of severe tooth decay.

"The big problem is the addition of refined sugar to their diet," said Lobay. "Culturally, they are not used to having this, so they

your teeth to drink lots of pop and

"I remember driving away and one little girl waving at us, smiling, with gauze still in her mouth. They were very thankful for the help we provided.



Kevin Lobay recently provided free dental assistance to children in Cambodia.

He said some adults were very reluctant to have their upper wisdom teeth removed because of a rural myth that it causes blindness.

Some believed us and others wouldn't allow us to remove their painful wisdom teeth," said Lobay. "I finally convinced [one of the ladies], so we extracted the tooth and talked about it afterwards. I asked the translator to ask her if she could still see and she just started laughing."

This is the fifth international trip Lobay has made through Kindness in Action over the last seven years. He has also travelled to the Philippines, Nicaragua, Guatemala and Peru.

There is no better way to travel and interact with cultures than doing something like this. And it is very rewarding to be able to help others," said Lobay, who is a physician at both the University of Alberta Hospital and the Royal Alexandra Hospital.

In late February, a number of dental and dental-hygiene students from the U of A went on other goodwill trips through Kindness in Action.

Kindness in Action was brought to fruition in 1993 by Amil Shapka, a 1990 Dentistry alumnus. Shapka says that half of his 1990 DDS class is regularly involved with Kindness in Action, and that up to one-third of the class has been involved at the

"It was a good class," said Shapka. "We were all pretty close when taking our studies and remain close to

The dental charity provides free dental care in areas around the world for those who have limited or no access to dental care. In the last decade, Kindness in Action has made 15 missions per year to Central and South America to help fill needs beyond dentistry. Those involved have helped to build schools, set up clinics, and develop and nurture programs.

Something about knick-knacks

Continued from page 1

a certain item home," Coleman said. "We are curious about how tourism works.

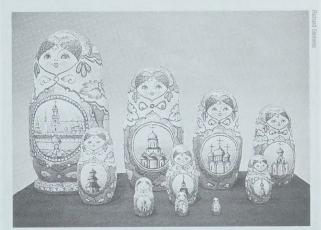
As with other purchases, there is a psychology behind travel trinkets, said Megan Strickfaden, assistant professor of material culture and design studies, who is leading the class project.

"People collect souvenirs for various reasons; they act as memory devices or to show off adventures taken. This exhibit will explore how well objects represent specific places, and whether this is important to the object's inherent value. We also wanted to explore the idea of authenticity of souvenirs from other places—are they more real if they are handcrafted rather than mass-produced?"

Take the example of lotus shoes, used to bind the feet of Chinese noblewomen as a sign of beauty. The exhibit features a real 19th-century pair of the tiny shoes from the U of A's collection, alongside a pair made for the tourist market. The real shoes are seven inches long; the fake ones, just three inches long.

Greetings From also tweaks viewers to think about the ideal of a dream destination versus the reality, Coleman said.

For instance, when you think of Paris, you think of art galleries and beautiful squares and restaurants. You get there and it's crowded, there's street crime, so the ideal of your expectations of Paris does not match the real Paris.



Souvenirs like these Russian nesting dolls are part of an exhibit examining the psychology of souvenirs

The exhibit features about 40 artifacts from the students and from the U of A's clothing and textiles collection, representing all parts of the globe including Australia, Africa, Europe, North America and Asia. The eclectic assortment of mementoes includes a nesting doll brought from Ukraine, a Dutch cookbook, a Polish walking stick, a wooden flute from the Czech Republic and a colourful assortment of the ultimate souvenir: T-shirts.

By asking travellers to think more deeply about their acquisitions, "it brings a bit of depth to the adventure of travelling," Coleman said. "There's a story behind every object. Everybody's journey has got a

Greetings From...Exchanging Cultural Ideals Through Tourism opens April 5 and runs through May 21 in the main floor lobby of the U of A Human Ecology Building. The exhibit is free of charge and open to the public Monday to Friday from 8 a.m. to 9 p.m. Saturday from 8 a.m. to 4 p.m. and Sunday from noon to 4 p.m.

Are You a

Congratulations to Erin Plume, whose name was drawn as part of Folio's March 30 "Are You a Winner?" contest. She correctly identified the location of last week's photo as the Rutherford South Library. For her correct answer, Plume has won a Butterdome butter dish. Up for grabs this week is a copy of "Baba's Kitchen Medicines: Folk Remedies of Ukrainian Settlers in Western Canada" by Michael Mucz. To win, simply identify where the object pictured is located and email your answer to folio@ualberta.ca by noon on Monday, April 23, and you will be entered into the draw.



Researcher turns tooth fairy to study teeth through the ages

Jamie Hanlor

niversity of Alberta researcher Nicole Burt took up an odd moonlighting job to further her research. She became a surrogate tooth fairy.

Burt, a graduate student in anthropology, was looking for a way to test a method she developed to get a more accurate measurement of particular isotopic signals from human teeth, specifically on early maternal and infant diets in ancient civilizations. However, before the process was applied to those teeth, she needed modern samples to make sure her device and testing methods yielded the results she was looking for—and with good reason.

"When you're doing things that are destructive to whatever you're collecting, researchers want to know the method works before they let you use an archaeological population," said Burt.

She teamed with Maryam Amin in the Faculty of Medicine & Dentistry to start a voluntary tooth collection program from children visiting the faculty's dental clinic. Children between birth and nine years old were asked to donate their teeth extracted for medical reasons during a visit, in exchange for a gift from the researching "tooth fairy."

The benefit of the furnished fangs is that they come with fewer unknowns than samples recovered from an excavation. Sandra Garvie-Lok, Burt's adviser, says that using samples from living donors gives archaeological researchers a better way to look at the process of tooth formation.

"You don't know at all what a child from the past was eating. You don't know how healthy they were before they died," said Garvie-Lok. "Using a modern sample eliminates some



Nicole Burt started a voluntary tooth collection to help her study infant diets in ancient civilizations.

of those unknowns and so it puts the research method on a firmer ground."

Using her homemade device, Burt cut the donated teeth longitudinally through the centre, exposing, among other things, the neonatal line that forms in a child's tooth at birth. Using micro-sized samples of the teeth, she was able to detect dietary isotopic signals from the times those parts of the teeth formed—from before birth to about three years of age. This

let her extract the weaning information she was looking for, as well as some other interesting findings.

"In this case, very interestingly, we had a really tight, specific 'toddler' diet," said Burt. "The children had a specific diet that's different from their mother's but is similar to each other's."

Burt's method has the potential to transform how certain aspects of population studies are conducted. The isotopic signals gathered will reflect diet in specific age ranges of youth from before birth to the toddler years. They will identify the weaning and dietary habits of a site's inhabitants and also allow children's health to be compared with their in-utero isotopic signals, which reflect their mothers' diets.

"Because this method uses the remains of older children to provide information on infant and toddler diets, it will be useful at sites where few infant remains were recovered," said Garvie-Lok. "The results will provide more detail on a given population or allow the study of smaller populations that previously would have been grouped together in research findings."

The method might also be used to collect similar weaning and dietary information in developing countries where medical records are scarce and the ability to compare children's health with the isotopic record of their nutrition in utero and during infancy may be helpful.

Burt is excited about the opportunities that her device and method may hold for herself and other researchers.

"It's very exciting. I know how I'll use it for my research, but it's nice to know that you're creating something that could help a lot of people with research questions they have that I could not even possibly think of," she said.

Germ fighter cuts the mustard

Bev Betkowski

ustard—it's not just for hotdogs anymore.
University of Alberta researcher Christina Engels has discovered how to extract a compound from mustard seeds that can protect against food spoilage.

Engels recovered a particular compound—sinapic acid—from mustard seed meal, which shows antibacterial effects against such strains as Staphylococcus aureus, E. coli and Listeria monocytogenes, all of which can cause grave illness and death in humans.

The results were published recently in the journal European Food Research & Technology.

The mustard family includes black, brown, Oriental, white and yellow varieties. Canada is the world's largest exporter of mustard seed, with 90 per cent of those crops grown in Saskatchewan.

Engels' isolation of sinapic acid lends a useful function to mustard

seed meal, which is the product left over after the seed is pressed for its oil. While the oil can be used in making biodiesel and in some Asian markets as cooking oil, "the defatted seed meal left over is currently of little economic value," said Engels, who conducted the research to complete her PhD in the U of A Department of Agricultural, Food and Nutritional Science.

There are several plant extracts that have a wide range of bioactivities, "but the challenge is to determine which of the many compounds in the extract is the active compound," Engels said. She was able to do just that with mustard seed meal, using a strong lye to break complex components down and isolate just the sinapic acid.

Since most companies don't have the intricate technology required to sort through the many compounds in plant extracts, the discovery makes it possible to quantify the bioactivity of the extracts with standard instrumentation.



Christina Engels has discovered that a particular compound found in mustard seed shows antibacterial effects.

"That means the mustard seed meal can be used as a source for natural food preservatives," Engels said, and could mean more consumer choice. "If there are consumers out there who want natural products, this would give them that option."

Engels' latest work with mustard seeds builds on research she's been conducting throughout her time as a U of A student. Intrigued by the idea of unlocking the beneficial qualities of plant extracts, she earned her master's degree at the U of A in 2009, basing it on research of the mango kernel.

Through that project and her subsequent doctoral studies, she found a way to turn the throwaway kernels into a natural food preservative that could help prevent listeriosis outbreaks in humans.

She believes plant extracts offer huge potential for health benefits related to their antimicrobial, anti-inflammatory and antioxidant qualities.

"Mother Nature holds all these great bioactivities ready and all we need to do is find ways to make them work for us."

Engels' research was funded by the National Sciences and Engineering Research Council of Canada and by the Canada Research Chair Program.

The transformation of e-learning

Folio Staff

ith a vision of enhancing teaching and learning on campus, the University of Alberta has embraced online learning.

For almost two years now, the U of A has gradually been moving its eClass resources to Moodle, the open-source learning management system (LMS).

Today, eClass powered by Moodle, supported by the Centre for Teaching and Learning, is hosting more than 2,400 Winter course sections and nearly 1,700 in the Fall.

The university initiated this LMS transition because its previous online teaching platform, Blackboard, announced in 2010 that it was terminating support for its Vista product at the end of 2012. Moodle, which was already in use in a limited number of situations across the university and proving to be remarkably flexible for developing and delivering modules that support specific needs of the university, was the obvious choice.

"The change in learning management systems has given us the opportunity to help faculty members transform the online experience that they offer their students," said Jonathan Schaeffer, vice-provost (information technology). "The uptake by the faculty has been excellent and the students are appreciative."

Tamie Heisler-Schafer, academic assistant in the Department of Physical Therapy, had great praise for the staff at CTL. "The support provided to our instructors by the Centre for Teaching and Learning was great," she said. "They responded quickly and helped us set up synchronous sessions with multiple instructors and online exams."

Physical Therapy piloted four courses in eClass Moodle in Spring 2011 and moved the rest of their courses over in Fall 2011.

"The students adapted to the new learning environment with ease and actually preferred the layout of Moodle over [the old system] Blackboard Vista," said Heisler-Schafer. "The majority of our instructors like Moodle better than Blackboard Vista as they find it easier to use. Some miss some of the features in Blackboard Vista, but for the most part, it's been a very positive experience."

Dave Sun, CTL technology team lead, says CTL has been developing plug-ins to minimize this feature gap, while also going above and beyond to extend eClass Moodle's capabilities.

Additionally, CTL is encouraging interested Moodle developers on campus to get involved as a part of the UAlberta Moodle developers' community.

"Moodle gives us new opportunities. We want to promote innovation," says Sun, "but we also need to be careful and balance creativity with sustainability."

After a flurry of activity in the past year, the Moodle Transition project is coming to a close.

"But it does not end once the move to Moodle is complete," said Scott Delinger, IT strategic initiatives officer. "The university must continually improve its online presence."

Spring 2012 is the last term that credit courses will be offered on eClass powered by Blackboard Vista. The last date for instructors to access the eClass Vista system will be Aug. 31. For more information, visit www.moodle.ualberta.ca.



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University seeks partnerships to continue to build a global library

Michael Davies-Venn

he University of Alberta
Libraries hold a special position
among research libraries in Canada.
Now the university is using that position to
help develop libraries and enhance research
with other institutions around the world, says
Margaret Law, director of international relations with U of A Libraries.



Margaret Law

She says the decision to make the libraries a part of that global endeavour is an example of the university's commitment to engaging with the international community.

"We're the only major library that has international engagement as a strategic focus," said Law, who recently returned from a visit to four of India's institutes of technology—a collection of institutes created by the government of India, partly, to train engineers and scientists.

"The university has stated its direction to be recognized globally as a research institution and also as a global citizen. Most universities that have taken an international stance, such as we've done, have not included the library. We're different—the internationalization of the U of A includes the library and we're out in front on this. We recognize that to support any kind of partnership, there needs to be the infrastructure."

And from one university to another, Law is using the university libraries' rare position to build that infrastructure by helping develop expertise in librarianship and build library collections worldwide, while enhancing research capacities at the U of A.

For example, she says, IIT Ropar offers a course that the university is well positioned to support.

"They have a course on Canadian literature but have a very limited collection. That's an area where we have a lot of expertise, and we're going to help them build a good Canadian literature collection so they would have good library support for teaching that. Canadian literature is of interest worldwide," Law said.

From working with IIT Ropar, the U of A will receive research materials that will further develop its growing international position on global health.

"They're going to help us build our traditional and indigenous collections in health and medicine, by providing us with locally produced materials," said Law. "We have a number of researchers here who are interested in global health issues and we have a special collection that's specifically focused on indigenous traditions and health practices.

"For example, one of the partners in India will be providing us materials for our health sciences library on ayurvedic medicine, which is a way of thinking about medical issues that's different from the western perspective,"

We're the only major library that has international engagement as a strategic focus."

Margaret Law

says Law. She also returned from India with drawings of India's famous Ganges Canal from the 1800s that have been digitized. "We have a very strong teaching tradition here in the history of technology, science, the British Empire—this contributes towards that tradition," she says.

The growing need for such partnerships is a result of the increasing globalization, including academic, within which the university plays an active role as a global citizen.

"Information is international now," said Law. "One of the things that technology has done is broken down the silos. That has provided us with opportunities to find out what other people think, what they know. We see an increasing interest in other perspectives and the library needs to support those beyond western perspectives on medicine, engineering, or any other fields."

Retooling microbiology course to fuel energy innovation

Michael Brown

atching the world economy go in search of unconventional ideas for new energy sources, Julia Foght began to see a void emerging in her students' understanding of a little-understood technology that has roared to the forefront.

be at the nexus of conventional and unconventional petroleum-based industry and the new carbohydrate-based renewable energy right here at the U of A."

Julia Foght

The new fuel source whose time has come is biofuels derived from the age-old process of fermenting biomass. Foght, who considers herself a petroleum microbiologist, says biofuels are set to play a big role in the world's energy future, yet very few people understand them, and the subject was only being touched on in her industrial microbiology class.

"As the world seeks sustainable fuels and feedstocks, microbial fermentation of biomass is emerging as a viable supplement to petrochemicals," said Foght, professor in the Department of Biological Sciences. "It is essential that our students, the citizens of the future, understand the principles of fermentation so as to contribute to informed debate surrounding these biological products."

Foght, one of the first to study the role of microbes in accelerating the settling of solids and recovery of water in tailings ponds, combined a 2011 McCalla Research Professorship and a \$15,000 grant from the university's Teaching and Learning Enhancement Fund to renovate the university's industrial microbiology course content and build a virtual fermenter.

The TLEF and McCalla enabled me and my team to take something that I felt had become a void in our curriculum and give students some hands-on experience with technologies they've pre viously only read about," she said. "The whole point of the course is to give our students a chance to evaluate new technologies that are coming out, like biofuels. Are biofuels reusable? Are they feasible? Are they environmentally sound? Are they economically realistic? Having the TLEF to help develop this kind of tool is a step towards an educated citizenry."

In retooling the course, Foght sought the guidance of David Bressler, an expert in fermentation and director of the Biorefining Conversions Network, an organization working to support provincial research communities in the areas of biorefining and biomass conversion technologies. She says she also wanted to make the class more relevant to Alberta.

"For this particular class, I wanted the students to get a feel for what is happening in Canada, in Alberta. When we lecture, so often the data we use come from the U.S.," said Foght. "I wanted to present not only what is going on in the U.S., but also to say what the potential is for Canada and particularly Alberta."

particularly Alberta.

In creating the fermenter, named STuaRt, or Stirred Tank university of alberta Reactor training, Foght enlisted the help of chemical and materials engineering professor Dominic Sauvageau, who teaches courses on chemical reactor analysis and whose research focuses on microbial bioprocessing; her PhD student Abigail Adebusuyi; and the U of A's Academic



Julia Foght

Information and Communication Technologies group.

The web-based application simulates a large-scale bioreactor. The vessels are used to create optimal conditions to grow bacteria or enzymes and to promote different types of fermentation. Before biofuels, fermenters have historically been used in wastewater treatment and environmental remediation. Commercially, they are used in the manufacturing of a wide array of products including pharmaceuticals and food flavouring.

Though STuaRt is just a twodimensional simulation with a limit on the number of reactions that it churns out, Foght says outputs, which might normally take days, are relatively instant. STuaRt is available to anyone, an offer already taken up by students at NAIT, and open source, meaning more bioreactions can be coded in.

"It is interesting to be at the nexus of conventional and unconventional petroleum-based industry and the new carbohydrate-based renewable energy right here at the U of A," said Foght. "It is very interdisciplinary—you need people on the biomass side, the ones who are growing the crops, the ones who understand agronomy, the people who understand the microbes and the people who understand the engineering of how to get the products out and how to do the processing economically. This is a happening place."



ADVISORY REVIEW COMMITTEE FOR PROVOST AND VICE-PRESIDENT (ACADEMIC):

Input from the Community

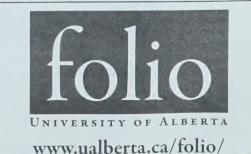
Dr. Carl Amrhein, Provost and Vice-President (Academic), has advised President Indira Samarasekera that he would like to stand for a third term of office. In consultation with the Chair of the Board of Governors, President Samarasekera has established an Advisory Review Committee for Provost and Vice-President (Academic).

UAPPOL provides that members of the university community have an opportunity to contribute to the review process. Individuals are welcome to express their views on the priorities of Provost and Vice-President (Academic); including current issues, leadership, and the future direction of the Office of the Provost and Vice-President (Academic). A summary of all feedback will be provided to Dr. Amrhein during the review process. President Samarasekera invites you to submit your comments and/or suggestions by 4:30 pm on May 4, 2012, to:

President Indira Samarasekera c/o Jackie Wright, Secretary to the Advisory Review Committee 3-1 University Hall, University of Alberta email: jackie.wright@ualberta.ca

All submissions shall be in writing and must include a written or email signature. Non-tenured faculty, staff, and students may request that their submission be passed to the committee anonymously.

Responsibility for the administration of the review process is housed in the Office of the President. Membership of the Advisory Review Committee is posted on the President's website at www.president.ualberta.ca.



The art of the dinosaur find

University of Alberta student has combined his paleontology training and considerable artistic skills to become part of a landmark dinosaur find.

Lida Xing, a 29-year-old U of A master's student, is part of a China-based research team that discovered and described the largest feathered member of the tyrannosaur group of meat-eating dinosaurs. "Yutyrannus huali is also the largest feathered dinosaur of any kind ever found," said Xing. Researchers say evidence of feathers was found around the head and tail section of the fossil, which was unearthed last year in northern China.

The researchers say the nine-metre-long. 1.4-tonne dinosaur is distantly related to the iconic meat eater, Tyrannosaurus rex.

larger and came along 53 million years later but there has never been a trace of feathers found on a T. rex fossil," said Xing, who explained that shortly after the first feathered dinosaurs were discovered in 1996, it was predicted that tyrannosaurs may have had feathers on their bodies.

"Other smaller fossils from the Tyrannosauroidea superfamily have shown evidence of feathers, but Yutyrannus huali is by far the largest," said Xing. "The discovery of Yutyrannus increases the chances that eventually a T. rex fossil will turn up with feathers on its head."

Xing is a self-taught artist whose dinosaur artwork has appeared in National Geographic magazine and in several dinosaur books he wrote in his native China.

The discovery of Yutyrannus

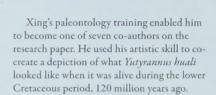
increases the chances that

eventually a T. rex fossil will turn

Lida Xing

up with feathers on its head."

The research was published April 4 in the academic journal Nature.



Exhibition paints picture of China's modernity in imperial era

Artists' depiction of

by Lida Xing and Yi Liu

Folio Staff

ow did modern ways of making paintings and prints—from me chanical reproduction to creative appropriation-emerge from the ink painter's studio, enter the public sphere, and help shape people's identities and lives in China during the late imperial era?

China's Imperial Modern: The Painter's Craft examines this question in an exciting new exhibition highlighting objects and artworks from the University of Alberta Museums' Mactaggart Art Collection.

Lisa Claypool, curator of the Mactaggart Art Collection, says by considering ink paintings, woodblock-printed books, sketchbooks, and artist's tools such as inkstones and inksticks from the 17th, 18th and 19th centuries, the exhibit explores how brush-andink painting left the domain of the educated elite to circulate in the art market, at the imperial court, and throughout what would soon become the nation of China. She adds the exhibition demonstrates how the visual pleasures, confusion and anxieties typically associated in the West with the modern mo ment of the early 20th century also typify the visual culture of China's late imperial era.

"Every day we encounter copies, fakes, simulations, models—sometimes we're copy cats, sometimes we're wonderfully original, said Claypool. "This exhibition asks us to reflect on the ways that painters in China

100 to 300 years ago encountered the same issues in their art practice.

Claypool curates the exhibit in collaboration with students in art and design and East Asian studies enrolled in the seminar Imperial China's Culture of the Copy. In addition to other public programs, student co-curators will be providing free guided tours of The Painter's Craft every Saturday beginning at 2:30 p.m.

The Mactaggart Art Collection is composed of more than 1,000 rare works of art, including court robes, works of calligraphy, paintings, engravings, and other artifacts from ancient and modern Asia. It was generously donated to the U of A in 2005 by Edmonton philanthropists Sandy and Cécile Mactaggart.

The exhibit runs until July 14 in Gallery A of the TELUS Centre on the U of A's main campus.



Entitled Female Visage Portrait, this anonymous 19th-century hanging scroll uses ink and colour





Plan Ahead for 2012 Course Readings

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- Fall: June 30
- Winter: October 1

PAW Centre set to break ground to support campus wellness

Titness is in the air and it goes far beyond the jogging hordes slowly emerging from their winter hibernation-construction of the Physical Activity and Wellness Centre is just around

The sprint to begin construction on the PAW Centre this spring is now nearing its final hurdle-approval from the provincial government to begin the dig on the corner of 87 Avenue and 114 Street.

66 Physical and mental health are so interconnected, and I believe the PAW Centre tries to take that into account."

Rory Tighe

"We are hoping to break ground in May or June," said Don Hickey, vice-president (facilities and operations). "Our goal is to ensure we have substantial completion by 2014.

On Feb. 10, the U of A Board of Governors gave its final approvals for the \$57-million fitness centre, including a borrowing resolution requesting approval from the provincial government for mortgage

dent-funded portion of the project.

"I think health and wellness is important to promote at the university," said Hickey. "Obviously it is something that has been an important initiative for the students as well. I think if we can help make that a reality then that is positive for everybody.

Rory Tighe, Students' Union president, says he believes the PAW Centre will redefine what health is on campus.

"The building combines the physical, mental and other aspects of health into this holistic term wellness," said Tighe. "Physical and mental health are so interconnected, and I believe the PAW Centre tries to take that into account."

Covering 180,000 square feet, the three-storey complex will house a 20,000-square-foot fitness centre, space for student recreation and study, one of the finest climbing walls in the country and a new Steadward Centre for people with physical disabilities—four times larger than its current incarnation. It will also be connected to the Universiade Pavilion (also known as the Butterdome), the east wing of what will be a renovated Van Vliet Centre and eventually by tunnel to the Edmonton Clinic Health Academy

On the heels of a string of university landmarks erected over the past couple of years that meet the



A rendering of the new Physical Activity and Wellness Centre.

top sustainable energy-management feature a glass exterior that showcases standards, including the Centennial Centre for Interdisciplinary Science and the Edmonton Clinic Health Academy, the PAW Centre looks to set the bar even higher.

"There are a ton of possibilities," said Tighe. "We're at the stage where the ideas are pretty close to being finalized, but we're still not positive which ones will make

Tighe says one of the more exciting concepts awaiting the green light is a system of exercise bikes and treadmills that, when in use, will help power the building. Also getting some attention are ideas involving windmills, solar panels and even a living wall. Tighe also looks to the PAW Centre's role as a campus showpiece as one of its more enduring physical qualities.

When you drive by that corner right now it is kind of cold and barren," he said, "but with the new building we have a great design that will

the facilities including a climbing wall

going make the campus more physically attractive.

Hickey, who has overseen the construction of some memorable projects during his time as vice-pres ident of facilities and operations, says the design is one the university should be proud of.

"I think it is going to be a marvelous-looking building," said Hickey. "I think it is going to be a real statement on the corner and I hope people see it the same way."

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Industrial design program breeds creativity by encouraging failure

Michael Davies-Venn

s students in the University of Alberta's industrial design program continue to win one international award after another, they do so having been nurtured on an idea that is quite uncommon at a university.

We know that if you're not prepared to fail, you'll never be creative," said Robert Lederer, industrial design professor, who heads the program. "We encourage students to fail, so they're able to explore. If they fail in doing so, that's not such a bad thing. Students are encouraged to experiment."

The program's unconventional approach has helped produce a tradition of successes. Industrial design students have gone on to win top prizes at some of the world's most prestigious design competitions. One of them, Laila Steen, says she left her native Norway for the U of A after having learned about the program's approach to design.

In February, Steen won best student design at the Interior Design Show, Canada's largest contemporary design fair. She credits tha success to another unusual approach, which she says corrects a misconceived dichotomy between industrial design and art.

The common thought is that industrial design and art are quite different, but in this program we have opportunities to do a lot of things by hand and get to know the craft process in design. A lot of universities don't focus so much on students getting the opportunity to do things by hand."

Lederer says the program is designed to put a premium on getting students to explore materials and processes from a wide variety of perspectives. "This is not typical in other design schools," he adds. As part of his award for winning in the

category of fan favourite in Avenue magazine's annual design competition, industrial design student Rob Faulkner gets an all-expense-paid trip to New York to exhibit his designmultifunction table—at the International

Contemporary Furniture Fair, the secondlargest furniture show in the world. The judges told him his table represents a fine balance between form and function. Faulkner says his eyes were not set on designing furniture until the former mechanical engineering student experienced the structure of the program.

"I never knew that designing furniture was something I'd enjoy, but after the first class I realized that I enjoy it," he says. "In engineering, there's a disconnect wherein you're the one doing the designing, but the project is created elsewhere. Here, I could be designing upstairs and then go downstairs to the shop to build a prototype.

Lederer says until students put a piece of material through a process—even just cutting it—the knowledge they gain from that is imperative if they're going to become good designers. "It teaches students a language to speak with the people who're at the professional production side of things. We're one of the few

programs that allow that blend between design areas that I love, such as medical design," and production."

Understanding that blend is partly responsible for the success of Erin Cochran, who started collecting sneakers and basketball shoes in high school. That passion, which was nurtured at the U of A, helped her engage some of the world's premier footwear designers.

6 We know that if you're not prepared to fail, you'll never be creative."

Robert Lederer

"I was always very interested in doing footwear, and that's why I decided to pursue industrial design. But what I loved about the program is that it opened me up to other

said Cochran.

Coincidentally, that medical design work some of which had to do with facial reconstruction done at the Misericordia Hospitalled directly to a meeting with representatives from Nike who thought Cochran's ideas might bring a different dynamic to sportswear.

The people at Nike were amazed with what we do here," said Cochran, who was subsequently hired by the shoe giant.

The diversity of designs from the program can be seen at an ongoing design show Sweat of Our Brow-put on by the Student Design Association currently at Enterprise Square Atrium. "If I ask you what Danish design is like, you have a picture of it in your head, and the same for Italian design," said Lederer. "And if I ask what Canadian design is like, you'd have no clue. This show is what that's about. It's not Danish, it's not Italian, it's Canadian." I



The university's industrial design program offers students a chance to undertake a wide variety of projects.

Bringing back Baba's kitchen remedies

Bev Betkowski

hen he set out to research and document uses of plants by early Ukrainian settlers in western Canada, Michael Mucz had no idea just how much his project would blossom and bear fruit.

But Mucz's resulting book—20 years in the making—is a lovingly detailed chronicle that wraps science, Ukrainian culture and western Canadian history into one quirky package and flexes the boundaries of traditional scientific research.

Mucz, a professor of biology at the University of Alberta's Augustana Campus, wanted to write more than a typical academic reference book when he started his botanical project while on a sabbatical in 1992. His research soon led to a discovery of a rich cache of folk medicine that was as telling about humanity as it was about health.

Mucz's newly released Baba's Kitchen Medicines is a testament to the ingenuity and resourcefulness of western Canada's Ukrainian settlers, who used what was at hand to deal with just about every ailment, including frostbite, diaper rash, anxiety, kidney stones and infected limbs.



Michael Mucz

"Beyond the traditional prescriptions for healing remedies, I hope readers will recognize that these settlers had their backs against the wall, yet they didn't quit," said Mucz, who came to Canada after the Second World War with his parents, as displaced persons from Germany. "They made do with what they had, plus what their neighbours could share. People banded together to survive; they had to."

That legacy of helping one another took the form of medicinal remedies outlined in Mucz's book. with women largely serving as both family and community healers.

A hybrid mix of botany, history and anthropology, Mucz's research is as much a story about hardship and endurance as it is a scientific record, he said.

"This kind of research has tremendous social value; living in the individualized society we have today, we have lost connection with our neighbours and community. Ethnic cohesion and co-operation is a continuing feature of any group that comes to Canada."

Using a tape recorder and a notebook, Mucz personally conducted 200 interviews in Alberta's Ukrainian east-central communities, visiting seniors in their own homes as well as in lodges and nursing homes. He painstakingly gathered one-on-one remembrances of healing remedies and treatments used on isolated homesteads and farms.

During the course of his two decades of research, Mucz witnessed many tears, smiles and some embarrassing moments as distant memories surfaced in his interview subjects. Their average age was 81, and many have since passed away, but Mucz felt glad that he kept a promise he had made to them: "What you share with me, I will share with others." He compiled

66 Beyond the traditional prescriptions for healing remedies, I hope readers will recognize that these settlers had their backs against the wall, yet they didn't quit."

Michael Mucz

their stories so that they could be shared with their children, grandchildren and many other readers.

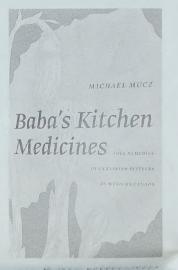
Drawn from the early 1900s, many of the folk remedies wouldn't be considered for household use today, but do have logical roots in modern science, Mucz noted.

"Many of the home remedies made a lot of practical sense.' Plants possess varied natural ingredients that effectively promoted healing and there were other materials close at hand as well, Mucz noted. Urine, for example, was known to be effective for treating dry and chapped skin. "Today, one of the leading ingredients in topical hand creams to treat such a condition includes uric acid." A cow manure poultice was a radical but reliable treatment to speed healing of infected wounds, and storebought goods like sulphur and salt also contributed to traditional healing treatments.

Ultimately, Mucz hopes his work will touch people "at the heart level"

by paying tribute to the human ingenuity and toughness shown by the early settlers in western Canada.

"Maybe the simplicity of the documented healing treatments and remedies best reveals what we can do for ourselves in our own homes."



Bushes loom large on the frozen tundra

Brian Murphy

niversity of Alberta researchers are part of a groundbreaking, multinational study of the effect of global warming on tundra vegetation in various regions around the world.

U of A biologist David Hik says the work, by a total of 47 contributors and published in the journal Nature Climate Change, is very timely.

"In just the last three decades summer temperatures in the Yukon are about 1.5 degrees warmer. In winter the temperature differences are even larger, around six or seven degrees above the mean," said Hik. "These temperature changes affect plant life and will eventually affect everything else."

Isla Myers-Smith, who did her PhD research at the U of A, studied shrub growth on Herschel Island off the coast of the Yukon and documented the dramatic growth rate of normally low-lying shrubs. "Shrubs have responded much more quickly to global warming than northern trees, said Myers-Smith. "Between 1999 and 2009, one species of shrub in our study plot doubled in height, going from four to eight centimetres high."

Myers-Smith explains that most tundra shrub species that currently hug the ground along the Arctic coastline of Canada have seen increased growth over the last decade. She says that changes in the size of shrubs are relatively small when mea sured over just a few years, but when forecast over decades or centuries, could result in a very different tundra landscape in the North of Canada 100 years from now.

The researchers say this increase in shrubs is an example of the problems a global warming growth spurt could cause for tundra ecosystems. "Taller shrubs can shade out surrounding plants and cool off the soil in summer, and they can trap snow in winter, keeping soils warm. Also, by changing soil temperatures, they can alter the tundra nutrient balance, said Myers-Smith.

The accelerated growth of the Herschel Island shrubs could also affect small mammals," adds Hik. "Predators like foxes and snowy owls will go undetected, which will affect the population balance of predators and prey in these sensitive ecosystems.

The researchers say their research was made possible by the long-term study plots that have been established by university and government researchers across Canada's North.

Still, Myers-Smith says that the massive collaboration required for the tundra vegetation project points to some geographic areas where findings are thus far incomplete. "Looking at a map of where the research came from, there are gaps such as in the Russian Arctic and even in some areas of the Canadian tundra," "We're hoping that funding agencies will see what our collaboration has accomplished and will help to fund future efforts so that vegeta tion monitoring can cover all tundra

FAB Gallery manager has made art work for 25 years

Michael Brown

or 25 years, Blair Brennan has been the only When the space was chiselled out of the Fine Arts Building leading up to its February 1987 launch, Brennan was there on day one to facilitate the gallery's mission of providing graduate students with a professional context to view their work. Of course, there was no way for Brennan to know how completely the FAB Gallery would paint itself into the portrait that is the U of A, nor could he have foreseen the impact the gallery would have on both himself and the people it serves.

"I like knowing there are graduate students of ours who continue to make and show art or continue to teach," said Brennan. "A lot of them have become good friends of mine, so it's nice to stay in contact with them and hear where they're teaching and showing.

He says he also likes that the FAB Gallery—although it is just bricks, mortar and empty space has become a wonderful teaching tool.

'You'll often see professors come in with their class; they'll come in and look at something very specific and say 'this is what I am talking about, go back to the studio and work it out," said Brennan

staffspotlight

"There are a lot of people at the university who like and appreciate art and who are looking for interesting, new ideas. That helps the kind of art that gets made and helps the kind of art that we

With more than 600 exhibits on its resume, half of which were solo exhibitions by graduate students, the FAB Gallery has been the site of an endless line of inspiration, all of which Brennan has helped orchestrate.

With each show, we would do the promotion, which includes printed invitations and digital invitations, advertising, receptions, special functions related to a show, as well as the installation and deinstallation," said Brennan of the diverse workload that was unimaginable when he started 25 years ago. "But it all comes back to the best thing about working at the gallery, which is the people you meet and the things you see.'

For more information on the 25-year history of the FAB Gallery and for a list of events to mark the milestone, go to www.artdesign.ualberta.ca.



Blair Brennan celebrates 25 years with the FAB Gallery.



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news [shorts]

folio presents a sample of some of the stories that recently appeared on the ualberta.ca news page. To read more, go to www.news.ualberta.ca.

Ellis and Bottcher named U of A athletes of the year

Fourth-year Pandas volleyball setter/outside hitter Jaki Ellis and CIS champion Golden Bears curling skip Brendan Bottcher were chosen as the 2011-12 University of Alberta athletes of the year at the Green and Gold Athletic Awards held April 5 at the Shaw Conference Centre

Ellis, a physical education and recreation student, accepted the Bakewell Trophy for a season that saw her named a CIS championship tournament all-star, and a CIS first team all-Canadian. She helped the Pandas to a Canada West championship and CIS silver, and was one of the top servers and setters in CIS play. Ellis is the 17th member of the Pandas volleyball program to win the award, and the first since Tiffany Proudfoot won in 2010.

Bottcher, an engineering student, became the first curler to win the Wilson Challenge Trophy thanks to a spectacular season leading the Golden Bears to their first ever CIS/CCA curling championship. Bottcher and his teammates went a combined 12-1 against CIS competition this season, and he was named a CIS second team all-Canadian. Outside of his varsity competition, the Sherwood Park native led a different group of Golden Bears curlers to the Alberta, Canadian and World junior championship titles, while racking up a 42-3 record this year.

Carleigh Miller of Pandas soccer received a Block 'A' Ring, which is presented to fourth-year athletes who have demonstrated an exceptional contribution to interuniversity sport in the areas of athletics, academics, community support, and leadership.

Leah Walkeden was selected as the female rookie of the year after claiming Canada West gold in the 60m dash and bronze in the 300mrace, as the Pandas track and field team finished third overall at the conference championship.

Golden Bears swimmer Joe Byram was named male rookie of the year to go with CIS swimming rookie of the year honours after a season that saw the science student win two CIS individual medals (silver in 100m backstroke and 200m backstroke), set two U of A records, and set an Alberta provincial record (200m backstroke). He was also on a relay team (4x100m medley) that earned CIS bronze.

Finally, Mike Ling of Pandas volleyball was chosen as the R.G. Glassford Award winner. The award is given annually to a coach who has demonstrated long-standing coaching excellence in teaching ability, knowledge of sport and ability to motivate athletes.

University responds to federal budget

The University of Alberta is pleased the 2012 federal budget recognizes the importance education, research and innovation have as a driver for Canada's future economic prosperity, said president Indira Samarasekera

Despite tough fiscal realities affecting Canada and nations across the globe, Samarasekera said, the government continues to show confidence in the role universities have on the nation's economic landscape.

The 2012 budget is a clear signal that the federal government recognizes the benefits of investing in research, development and talented people, and the impact it will have on Canadians over the long term," she said

Highlights of the budget include \$500 million over five years, starting in 2014-15, to the Canada Foundation for Innovation to support advanced research infrastructure; \$60 million for Genome Canada to launch a new applied research competition in the area of human health, and to sustain the science and technology centres until 2014-15; \$37 million annually, starting in 2012-13, to the granting councils to enhance their support for industry-academic research partnerships; and \$10 million over two years to the Canadian Institute for Advanced Research to link Canadians to global research networks.

Honorary degree for Blackstock

Faculty of Extension associate professor Cindy Blackstock will receive an honorary degree from the University of Northern British Columbia in recognition of her longtime advocacy for Aboriginal children.

Blackstock, a native of Prince George, B.C., is also executive director of the First Nations Child and Family Caring Society of Canada.

"It's a special honour because I grew up in Prince George," says Blackstock, "so on a personal level it's quite nice to be honoured; it really brought to mind who deserves to be honoured in this, and that is the First Nations children and the non-Aboriginal children standing with them to ensure equality in health care, education and child welfare for children across Canada living on reserves.

She and the CEO of the Vancouver Olympic and Paralympic Games, John Furlong, will receive honorary degrees May 25 during convocation ceremonies.



The fuel-efficient Odyssey

Richard Cairney

group of U of A engineering students who designed and built a zero-emission car took second place in their division at an international competition in Houston, Texas.

Running March 30 to April 1, the Shell Eco-Marathon Americas competition challenged teams to design and build the most fuel-efficient vehicle.

The zero-emission U of A vehicle, which was designed and built by students, runs on a hydrogen fuel cell. The team took the silver medal in the Fuel Cell-Urban Concept division that asked vehicles to meet regulations designed to make the vehicle more conventional and similar to the cars driven today.

It's pretty amazing that they started from scratch to create a team and an organizational structure, which is important, and designed and built a car."

Marc Secanell

In the end, the car attained 26 kilometres per litre, which broke last year's record, but was just shy of the 28 km/l set by the first-place car designed by students from the University of Illinois.

"After a long, tough weekend with many curveballs thrown at our team, we are proud to be able to come home with the second-place trophy," said Matthew Sponiar, a fourth-year mechanical engineering student who spearheaded the group. "This is a great result for our team's first competition."

Marc Secanell, a mechanical engineering professor who advises the students and whose research focuses on fuel cell technology, says the group has done impressive work. Sponiar approached Secanell and design professor Curt Stout with an idea to form the group in 2010. Sponiar and a small group of fellow students assembled a team that designed and built the car, went through the administrative



Students who built a zero-emission car took second in their division at a competition in Houston, Texas.

processes involved in setting up an official U of A group, raised funds and secured sponsorships.

"It's pretty amazing that they started from scratch to create a team and an organizational structure, which is important, and designed and built a car," said Secanell. "They are applying everything we have taught them but they are also going beyond that, into things you might not see until you're in graduate studies.

Sahil Shah, a fourth-year mechanical engineering student and co-founder of the group, says that taking part in a project like the EcoCar requires some sacrifice—rather than studying, students are spending time working on an engineering challenge.

"I would say the last month has been the most stressful," he said. As a student in the faculty's co-op program, Shah is currently on a work placement, and made time after work to return to campus and work on the car.

"Engineering is all about the application of science and knowledge and this is a perfect opportunity to practise our engineering skills," he said. "It's great that we are able to apply what we have learned in class to a project we are passionate about."

The students will be posting blogs on the Faculty of Engineering website about their adventures.

The vehicle itself weighs 300 lbs., is powered by a hydrogen fuel cell and can travel at speeds of 40-50 km/h.

The EcoCar Team has also attended numerous conferences and events to engage with and educate the public on sustainable energy and transportation solutions. Education and outreach are central to what the EcoCar team does—it is using the vehicle to showcase innovative technology and educate the public about sustainability.

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OLD STRATHCONA SUMMER RENTAL July + study, 2 bath, cathedral ceiling DR, spacious family room. Close to UofA. No pets. \$1800/month - utilities included yard work required. Marie & Doug (780) 435-6795 or mariechidley@shaw.ca

BELGRAVIA August 1st occupancy. 3 bedroom house in south Belgravia. \$2,550/ month. 11833-71A Ave. 780-886-6005.

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RIVER VALLEY ESTATES your river valley hideaway in rossdale with easy u of a access. Superbly upgraded, beautifully maintained, 1,760 sq. ft., fully developed, equipped 3 bedroom townhome. Not a condo. A/C, hardwood, 2 gas fireplaces, extensively remodeled, 4 baths, attached garage, open island kitchen, lovely master bedroom, professionally developed family room and so much more. Listed \$539,000. Hugh Moncrieff, Royal Lepage Noralta

NEW DUPLEX NEXT TO FACULTE' ST. DEAN \$498,000, warranty, gorgeous!
Dark hardwood, slate fireplace, off white kitchen with stainless appliances, large bedrooms, 2/12 baths, walk-in closets, west yard and deck. Double garage. Patti or Chris Proctor. Realty Executives Devonshire. 780-438-2500. Photos at pattiproctor.com. 9226 - 92 Street.

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STRATHCONA 2 storey \$499,900. Steps to Mill Creek ravine. 1,711 sq. ft. Total 4 bedrooms, 21/2 baths. Walk to U of A, Whyte Avenue or Mill Creek pool. 10 minutes to downtown. Main floor fam ily room, gas fireplace, en suite, built in 1980. Chris Proctor Realty Executives Devonshire. 780-709-0811. www.goedmontonhomes.com. 9608 - 83 Avenue.

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UPGRADED BUNGALOW IN MINT CONDITION 10 minutes to U of A, down-town and running trails. One block to the Muttart Conservatory. Extensively upgraded bungalow in mint condition. New kitchen, 2 full baths. New shingles huge double garage second kitchen. New windows, a/c, newer furnace, total 4 bedrooms, dining room, private west yard. 9702-96 Street. \$519,900. Patti Proctor Realty Executives Devonshire. 780-909-5140. www.pattiproctor.com.

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BELGRAVIA Legal 3 bedroom suite with separate entrance in Belgravia. 1,600 sq. ft. bungalow with garage. Just one house from Saskatchewan Drive. \$200,000 of new renovations. High efficiency furnaces. New kitchen, fireplace, hardwood, large master, ensuite, extra sound proofing. New plumbuses. ing, wiring, closet organizer. Beautiful west yard. 7602-119 Street. Patti Proctor Realty Executives Devonshire. 780-909-5140. Photos at www.pattiproctor.com.

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WINDSOR PARK River Valley view at 11619 Saskatchewan Drive. 3,025 sq. ft. grand home. Private den, formal dining room, new kitchen with stain-less and granite. South yard with pool Gorgeous new 5 piece ensuite. Wood burning fireplaces. Fully developed base ment. 2 car garage. Flexible possession date. Call Patti Proctor Realty Executives Devonshire. 780-909-5140. Photos at www.pattiproctor.com

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Quinn Phillips

Thirty-six children between six and 12 years old visited the University of Alberta for the first ever Mini Docs Camp.

The camp is an incentive for parents and children to volunteer to be patients for second-year medical students who need to practise taking a medical history and performing a physical exam with pediatric patients.

Jo-Ann Paul, educational resources co-ordinator, tried asking friends who couldn't commit, mainly because children have to come in during school hours. That's when she turned to a home-schooling network.

"Finally I found someone but they said, 'What's in it for me?' said Paul. "That's where the idea started ... I surveyed a bunch of people from the network: What would they like to see? What would be worth their while? From there we ended up building this idea of a camp in return for volunteers.



Mini Docs Camp is an initiative to help medical students get experience with pediatric medicin

Prior to this, medical students had to go on to the wards, where they often could only observe their preceptors perform a physical exam on patients, because often the patients are too sick.

"A preceptor once told me that a child is not just a little adult," said Reji Thomas, a second-year medical student and camp co-ordinator.

"Their findings in a physical exam in normal are totally different and that pediatric interaction is invaluable to our education."



Young volunteers to the camp get to experience both sides of the stethoscope

Kids play patients at Mini Docs Citius, altius, fortius, 'robotius'

early 100 second-year mechanical engineering students faced an Olympic-sized challenge April 2 as they competed in the Mec E 260 Design Competition, a high-energy robotic contest that saw robots sprint, throw a ball at a target, and pull a chain down a track

The Olympic-themed competition was the culmination of an intensive semester of sweat and long hours, in which 24 teams of students designed and built self-controlled robots for Mec E 260, a second-year mechanical

engineering course that teaches the basics of engineering design and machining skills.

The purpose of the competition was to determine which team had For one tenacious team, it was also a time to reflect on the powerful learning experiences that bloomed from a semester full of difficulties.

According to Vidhya Subramanian and Mohammad Siddigi, members of Team Onager, from the very beginning the team was plagued with problems that included everything from multiple parts breaking to design issues "When we started manufacturing the robot we came across several

issues, each more intricate than the other. It started bringing our morale down," said Siddiqi. "When we first tested our robot it did not

To top it all off, the morning of the competition an important worm gear on the robot's shaft snapped off. "Unfortunately, the material the worm was made out of was too brittle, and under the vibration while launching the worm gear broke," explained Subramanian.

"Fortunately we were able to mend it by placing a metal collar around the shaft and binding it with superglue as a temporary solution to get us through the competition," added teammate Matthew Dearborn.

The solution worked perfectly until the final event, when the worm gear ruptured once more. Despite this, the team finished the competition in a respectable seventh place.

According to the team, they were at first quite discouraged by all the challenges, but they soon began to see them as positive learning opportunities.

"By the time the competition rolled around, our attitude was completely different. Whenever something failed, it kind of excited us within ourselves just thinking we would have to find a solution for it," said Siddiqi. "In my personal opinion, the best aspect of the experience was not the successes we achieved, but the failures we encountered and had to overcome.

"The perseverance through our adversities was a very rewarding experience for our group," Dearborn agreed.



Second-year mechanical engineers competed in a competition to see who could design and build the best self-controlled robots

According to professor Pierre Mertiny, overcoming these sorts of challenges helps students develop the strong, hands-on design skills they need to become topnotch mechanical engineers. "Without courses like Mec E 260, the students would miss the crucial experience of how to combine and apply the material learned in engineering science courses to real engineering problems," he said.

Student Sarah Khan, also a member of Team Onager, said she found this approach highly beneficial. "Applying our knowledge to a concrete problem instead of son thing just on paper was extremely valuable," she said.

The experience has forced us to think outside the box," said Siddiqi. "When we become actual engineers. we'll know there are so many infinite ways to approach a problem, and not just one traditional way."

events

Talks & Events listings do not accept submissions via fax, mail, email or phone. Please enter events you'd like to appear in folio and at www.news.ualberta.ca/events re list of events is available online at www.events.ualberta.ca. Deadline: noon one week prior to publication. Entries will be edited for style and length

UNTIL JULY 14

China's Imperial Modern: The Painter's Craft. consideration of ink paintings, wood-block printed books, sketchbooks, and artist's tools such as inkstones and inksticks, The Painter's Craft asks how modern ways of making pictures—from mechanical copying to creative appropriation—emerged from the ink painter's studio and contributed to the crafting of everyday life in China during the imperial era. ects taken from the U of A Museums Mactaggart Collection. Telus Centre.

UNTIL APRIL 27

Dare to Share: Campus Food Bank & Design Fundamentals. Master of Design thesis research Lyubava Fartushenko. Rutherford Library Galleria.

APRIL 15

The Department of Music presents SENSORED, an exhibition of interactive sound art works 6-10 p.m. Studio 2-7 Fine Arts Building

APRIL 16

The Department of Music presents a Trumpet Masterclass with Allen Vizzutti. 1-3 p.m. Convocation Hall.

What's in Your Estate - Discover the Potential of Making a Well Planned Gift. Estate-planning expert Alain Levesque demystifies many preconceived notions about giving to charity. Through his inspiring examples, he not only shows what's hidden in our

estates but also forever alters our view of philanthropy by demonstrating how easy it is to give to causes close to our heart. To register, RSVP at 780.492.7167 or E-mail to rsvp@engineering.ualberta.ca. 5:30–8 p.m. E1-017, Maier Learning Centre, Engineering Teaching and Learning Complex.

The Department of Music presents XiME (Experimental Improvisation Music Ensemble) with Jen Mesch Dance Conspiracy and Werner Friesen. 8-10 p.m. Convocation Hall

Border Studies and Ukrainian History. This lec ture is presented by Volodymyr Kravchenko from the Department of Ukrainian Studies, National University of Kharkhiv, Ukraine. 3-5 p.m. 243 CAB.

The Department of Music presents The Undergraduate Composers Concert featur-ing Contempo New Music Ensemble. 6–7 p.m. Convocation Hall

Augustana Vocal Jury Recital with Carolyn Olson on piano, featuring voice students from the studio of Charlene Brown, 7–9 p.m. Augustana Campus (Chapel), Camrose

Educated Gardener - Contain Your Enthusiasm. Learn about green, sustainable approaches to gardening from masters in the fields from horticulturist and U of A alumnus, Jim Hole ('79 Ag). Jim will talk about the basics of container gardening and share the

hottest container plants and trends for 2012. 6:30-8:30 p.m. Enjoy Centre, 101 Riel Drive, St. Albert.

APRIL 19

Delete Bullying. The final installment of a four-part series on bullying in the classroom. Wade King, Office of Safe Disclosure and Human Rights at the U of A, will lead a the discussion designed to enable participants to better understand the dynamics of bullying and develop strategies to address and eliminate bul lying behaviours in work and learning environments at post-secondary institutions. 7:30–9:30 a.m. Telus

Educated Reel. The U of A Alumni film club showcases prominent and up-and-coming alumni filmmak ers. A discussion-worthy feature will be followed up with a lively conversation. 7–9 p.m. Garneau Theatre.

CN Trade Relations Forum: Prudence on the Climate Front. Michael Hart, Simon Reisman Chair in Trade Policy and professor of international affairs at Carleton University will give this lecture. 11 a.m.-12:30 p.m.

Jean de la Bruyere Lounge, 4-06 Alberta School of Business.Register at wcer@ualberta.ca or 780-492-2235

TED Talks ® Lunch. Bring your lunch and be inspired by some of the world's most fascinating thinkers and doers as they present the talk of their lives in 18 minutes. Watch a TED Talk video

presentation (selection is kept secret) then join in a discussion. Noon-1 p.m. Enterprise Square

Educated Wallet with Lesley Scorgie. Best-selling author and U of A grad Leslie Scorgie will be on hand to share her guide to financial success. Scorgie is the bestselling author of *Rich by Thirty: A Young Adult's Guide To Financial Success.* 5–9 p.m. U of A Calgary Centre, Calgary.

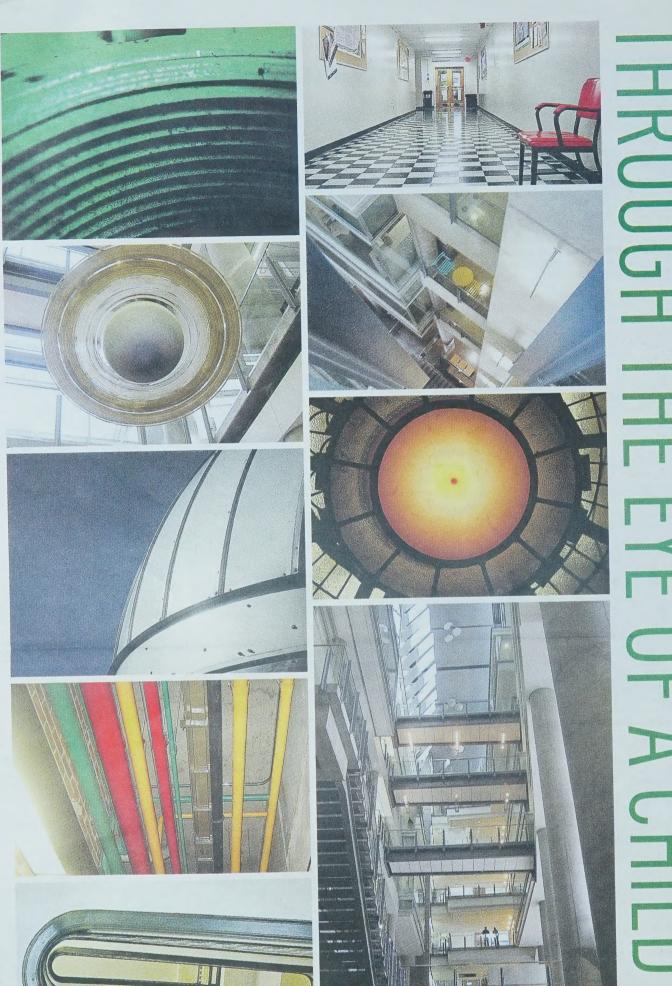
APRIL 26

Educational Policy Studies Research Day. The diverse research interests and collective talents in the Department of Educational Policy Studies community will once again be celebrated. 12:15 –6 p.m. 4th floor

Neither Here Nor There: The (Non-)Geographical Futures of Comparative Literature. The 2nd U of A-Peking University Comparative Literature Colloquium will examine how geographical considerations in Comparative Literature will continue to evolve in the coming years. 9 a.m. -noon. Convocation Hall.

APRIL 29

West meets East. In anticipation for their international performance and study tour to Hungary, The Augustana Choir and selected alumni present music Augustaria Cina and Selecte damini present into that is exemplary of Canadian and Hungarian composers. Tickets \$16 adults, \$12 students/seniors and \$40 family. 7:30–9 p.m. Augustana Campus (Chapel),



These pictures were taken by U School students on photographic forays around the U of A's north campus. U School is an initiative of the U of A senate, which provides a weeklong experience of new learning and discovery opportunities for students in grades 4 to 9 from socially vulnerable schools.

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